

Amendments to the Claims:

The following is a complete listing of the claims pending in the application, as amended. This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) A method of generating tethered extracellular domains of transmembrane proteins comprising:

preparing an expression vector comprising a 5' nucleic acid sequence encoding a signal polypeptide sequence, a nucleic acid sequence encoding a purification epitope tag polypeptide, a sequence encoding for an extracellular domain of a membrane protein, and a 3' nucleic acid encoding an membrane anchor polypeptide sequence;

transfecting mammalian cells with said expression vector to generate an anchor tethered protein targeted to an extracellular domain of a plasma membrane; and

displaying the anchor tethered protein on a lipid bilayer array ~~or purifying and reconstituting the anchor tethered protein in membranes for displaying on a lipid bilayer array~~

wherein the displayed anchor tethered protein is capable of binding to a ligand.

2. (Previously presented) The method according to claim 1, wherein said 3' anchor polypeptide sequence is a glycosylphosphatidylinositol (GPI) anchor sequence.

3. (Previously presented) The method according to claim 2, wherein said GPI-anchor sequence comprises (SEQ ID NO:3).

4. (Previously presented) The method according to claim 1, wherein said mammalian cells are Chinese hamster ovary (CHO) cells.

5. (Previously presented) The method according to claim 1, wherein said signal sequence is an epidermal growth factor signal sequence.

6. (Previously presented) The method according to claim 1, wherein said purification epitope tag is a hexa-histidine epitope tag.

7. (Withdrawn) The method according to claim 1, wherein said myristoylation-encoding sequence is a c-Src myristoylation-encoding sequence.

8. (Withdrawn) An expression vector for generating a tethered extracellular domain protein comprising:

- a 5' signal sequence,
- a purification epitope tag;
- a sequence coding for the extracellular domain of a membrane protein; and
- a 3' anchor sequence.

9. (Withdrawn) The vector according to claim 8, wherein said anchor sequence is a GPI sequence.

10. (Withdrawn) The vector according to claim 8, wherein said purification epitope tag is a hexa-histidine epitope tag.

11. (Withdrawn) An expression vector for generating a tethered intracellular domain protein comprising:

- a 5' signal sequence for myristoylation;
- a sequence coding for the intracellular domain of a membrane protein; and
- a 3' purification epitope tag.

12. (Withdrawn) The vector according to claim 11, wherein said purification epitope tag is a hexa-histidine epitope tag.

13. (Withdrawn) The method according to claim 1, wherein said mammalian cells are HEK-293 cells.

14. (Withdrawn) The method according to claim 1, wherein said signal sequence is selected from a protein selected from the group consisting of insulin, nerve growth

factor, platelet-derived growth factor, glucagon, ICAM-1, B7-1, TrkA, platelet-derived growth factor receptor, and CD58.